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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark Viklund

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EXAMINER

LARSON, JUSTIN MATTHEW

ART UNIT

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3782

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,912	Applicant(s) VIKLUND ET AL.	
	Examiner Justin M. Larson	Art Unit 3782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-13, 17, 18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-13, 17, 18 and 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-13, 17, 18, 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Performance (Performance, XPORT Xcess Cargo Box, 5/4/03) in view of NPL (prior art cargo container strut submitted by Applicant on 3/20/09), further in view of Jones (US 2,656,563 A).

Regarding claim 13, Performance discloses a vehicular mountable cargo container comprising: a top portion hinge-connected to a bottom portion as claimed (Figure 1); and a pair of spring-biased struts interposed between the top and bottom portions (Figure 2), configured to exclusively deliver an assisting expansion force between the top and bottom portions (inherent nature of the design, as supported by Attach Spring Struts to Lid step #2). Performance fails to disclose each spring-biased strut comprising a cam surface as claimed; and a force communication point as claimed.

The NPL, however, also discloses a cargo container spring-biased strut and teaches that it is known for such a strut to utilize a cam surface and force communication point between its arms in order to control the motion of the container's top portion relative to the bottom portion, the force communication point lying on one

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side of the force communication point in an open configuration (Figure 1c) and lying on an opposite side of the force communication point in a closed configuration (Figure 3c). Jones also discloses a spring-biased strut for controlling the movement of a container lid and teaches that the strut utilizes a cam surface and force communication point in order to control the motion of the lid. Jones teaches (Figure 1) that a force communication point of the strut remains exclusively on one side of a line (32) oriented parallel to a direction of an operationally effected force imposed by the biasing spring (14) between the two arms (12 and 10/11/13/16) and intersecting a pivot connection (20) between the arms in order to provide a unidirectional force that constantly counterbalances the lid. Jones also teaches that the shape of the cam surface and the spring force can be varied to alter the counterbalancing effect of the strut (col. 4 lines 48-53).

First, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the Performance strut with a strut utilizing a cam surface and force communication point, as taught by the NPL, as a mere substitution of known vehicle-mounted cargo container struts. Second, given Jones' disclosure of ways to alter the counterbalancing effect of a strut, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the modified Performance container strut arms with cam surface (like 18 of Jones) and spring surface (like 17 of Jones) together defining a single-side force communication point, as taught by Jones, in order to provide a unidirectional force and

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to increase the spring force in order to provide an assisting expansion force helping a user to open the top portion, as originally suggested by Performance.

Regarding claims 9 and 10, the struts of the modified Performance container are configured to avoid/prevent delivering a closing force between the top and bottom portions as claimed.

Regarding claims 11 and 12, the struts of the modified Performance container are configured to perform in substantial unison as claimed.

Regarding claims 20, 21 and 23, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes that the cam surface of Jones, which has been applied to the modified Performance carrier, includes two delimiters (22,22a) as claimed.

Regarding claims 17 and 18, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes that the expansively directed force is controlled as claimed. The cam surface of the modified Performance container resembles that of Jones, where that of Jones (Figure 1) is configured like that of the present invention (Figures 5 and 7). When in the open position, both have a thinner cam surface engaging an uncompressed spring. When in the closed position, both have a thicker cam surface engaging a compressed spring. It follows that the forces applied between the spring and cam surfaces are similar.

Regarding claims 22 and 24, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes

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that the struts of the modified Performance container include a body (within the arms) that houses the cam surface (slider) and spring.

Regarding claim 25, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes that the struts of the modified Performance container include a line oriented as claimed, as taught by Jones (32).

Regarding claim 26, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes that the operationally effective force imposed by the spring between the two arms is inherently a summation of a plurality of vector forces.

Regarding claims 27-29, the method steps as claimed are satisfied during the normal operation and use of the modified Performance container. Examiner notes that the struts are configured as claimed.

3. Claims 9-13, 17, 18, 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiumi (JP 11291832 A) in view of Parker (US 3,640,423 A), further in view of NPL (prior art cargo container strut submitted by Applicant on 3/20/09) and Jones (US 2,656,563 A).

Regarding claim 13, Uchiumi discloses a vehicular mountable cargo container comprising: a top portion (1) hinge-connected to a bottom portion (3) as claimed; and a spring-biased strut (10) interposed between the top and bottom portions (Figure 1), configured to exclusively deliver an assisting expansion force (due to compression spring 12) between the top and bottom portions. Uchiumi fails to disclose a pair of

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struts, each spring-biased strut comprising a cam surface as claimed; and a force communication point as claimed.

Regarding the number of struts, Parker discloses a related container and teaches that two spring-biased struts (90,91) are used to control movement of the container lid. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided Uchiumi with two struts, as taught by Parker, in order to better support the lid.

Regarding the details of the struts, the NPL also discloses a cargo container spring-biased strut and teaches that it is known for such a strut to utilize a cam surface and force communication point between its arms in order to control the motion of the container's top portion relative to the bottom portion, the force communication point lying on one side of the force communication point in an open configuration (Figure 1c) and lying on an opposite side of the force communication point in a closed configuration (Figure 3c). Jones also discloses a spring-biased strut for controlling the movement of a container lid and teaches that the strut utilizes a cam surface and force communication point in order to control the motion of the lid. Jones teaches (Figure 1) that a force communication point of the strut remains exclusively on one side of a line (32) oriented parallel to a direction of an operationally effected force imposed by the biasing spring (14) between the two arms (12 and 10/11/13/16) and intersecting a pivot connection (20) between the arms in order to provide a unidirectional force that constantly counterbalances the lid. Jones also teaches that the shape of the cam surface and the

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spring force can be varied to alter the counterbalancing effect of the strut (col. 4 lines 48-53).

First, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the Uchiumi strut with a strut utilizing a cam surface and force communication point, as taught by the NPL, as a mere substitution of known vehicle-mounted cargo container struts. Second, given Jones' disclosure of ways to alter the counterbalancing effect of a strut, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the modified Uchiumi container strut arms with cam surface (like 18 of Jones) and spring surface (like 17 of Jones) together defining a single-side force communication point, as taught by Jones, in order to provide a unidirectional force and to increase the spring force in order to provide an assisting expansion force helping a user to open the top portion, as originally suggested by Uchiumi.

Regarding claims 9 and 10, the struts of the modified Uchiumi container are configured to avoid/prevent delivering a closing force between the top and bottom portions as claimed.

Regarding claims 11 and 12, the struts of the modified Uchiumi container are configured to perform in substantial unison as claimed.

Regarding claims 20, 21 and 23, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the cam surface of Jones, which has been applied to the modified Uchiumi carrier, includes two delimiters (22,22a) as claimed.

Regarding claims 17 and 18, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the expansively directed force is controlled as claimed. The cam surface of the modified Uchiumi container resembles that of Jones, where that of Jones (Figure 1) is configured like that of the present invention (Figures 5 and 7). When in the open position, both have a thinner cam surface engaging an uncompressed spring. When in the closed position, both have a thicker cam surface engaging a compressed spring. It follows that the forces applied between the spring and cam surfaces are similar.

Regarding claims 22 and 24, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the struts of the modified Uchiumi container include a body (within the arms) that houses the cam surface (slider) and spring.

Regarding claim 25, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the struts of the modified Uchiumi container include a line oriented as claimed, as taught by Jones (32).

Regarding claim 26, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the operationally effective force imposed by the spring between the two arms is inherently a summation of a plurality of vector forces.

Regarding claims 27-29, the method steps as claimed are satisfied during the normal operation and use of the modified Uchiumi container. Examiner notes that the struts are configured as claimed.

Response to Arguments

4. Applicant's arguments filed 6/4/10 have been fully considered but they are not persuasive.
5. Applicant has asserted that Examiner has engaged in impermissible hindsight reconstruction and that Examiner has failed to provide an articulated reasoning to support the legal conclusion of obviousness.

Examiner notes that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

First, XPORT and Uchiumi are both concerned with a cargo box utilizing struts between the body and lid of the box. After studying XPORT and Uchiumi, one of ordinary skill in the art would realize that the struts are spring-loaded and utilize the tension/compression of the spring between two moving arms of the strut in order to provide some degree of assistance in moving the lid with respect to the body. Second, the NPL Dual Force Strut is a related strut that is also meant to be used to control the motion of a cargo box lid. After studying this NPL Dual Force Strut, one of ordinary skill

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in the art would realize that the strut is spring-loaded and utilizes a cam surface in order to provide some degree of assistance in moving the lid with respect to the body. Third, Jones discloses a related strut that utilizes a cam surface defining a force communication point as claimed (existing to the right of 32) that "counterbalances the increasing moment of a horizontally hinged movable member of substantial weight as it is moved from the vertical position to the horizontal position, thereby facilitating the safe handling of said member" (see col. 1 lines 51+) where "by varying the shape of the arc of the cam surface and by increasing or decreasing the compressive force of the coil spring, the counterbalancing effect of the arrangement may be varied".

Taking all of this into account, one of ordinary skill in the art at the time the invention was made, through their own available knowledge and reasoning, would have realized that a cargo box strut could be made to utilize a completely spring based system, as taught by XPORT and Uchiumi, or a spring and cam based system, as taught by the NPL Dual Force Strut, as both systems provide some degree of assistance in moving the lid with respect to the body. After realizing that a spring and cam based system could generally be used in place of the completely spring based system, and after studying Jones, one of ordinary skill in the art would have realized, through their own available knowledge and reasoning, that the cam and spring of that system could be modified as desired and could be provided with a force communication point as claimed, the motivation being to counterbalance the increasing moment of the hinged lid as it is moved from the vertical position to the horizontal position, thereby

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facilitating the safe handling of lid, where such counterbalancing would inherently assist the user in moving the lid from the horizontal position to the vertical position.

The above reasoning takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from Applicant's disclosure. The above reasoning clearly provides an articulated reasoning to support the legal conclusion of obviousness.

6. Applicant has asserted that replacing the XPORT and Uchiumi struts with the NPL Dual Force Strut cannot be considered a mere substitution, as the XPORT and Uchiumi struts provide only an opening force while the NPL Dual Force Strut provides a closing force in addition to an opening force. Examiner notes that this is not how the rejection is set forth. As set forth in the rejections, the exact cam and spring design of the NPL Dual Force Strut is not being added to XPORT and Uchiumi. If this were the case, the rejection would not include Jones. Instead, the rejections simply rely on the NPL Dual Force Strut as a teaching that cam and spring based strut systems are known in addition to the completely spring based strut systems of XPORT and Uchiumi. This teaching is then used as a logical nexus to the teachings of Jones. It is a cam and spring based system designed around the teachings of Jones that has been added to the XPORT and Uchiumi cargo boxes in the above rejections, and not the design of the NPL Dual Force Strut.

7. Applicant has asserted that the NPL Dual Force Strut would be rendered unsatisfactory for its intended purpose - that of providing a closing and opening assisting force - when modified by the teachings of Jones. Examiner notes that the NPL

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Dual Force Strut is not the reference being modified and refers Applicant to paragraph 6 above.

8. Applicant seems to assert that Jones is non-analogous art with respect to both XPORT and Uchiumi, as Jones is concerned with counterbalancing the weight of heavy objects such as covers and doors to protect operator and both XPORT and Uchiumi are concerned with roof-mounted cargo boxes. Examiner notes that: first, in each of Jones, XPORT, and Uchiumi, a lid is being moved from a horizontal position to a vertical position; second, in each of Jones, XPORT, and Uchiumi, a device is provided that controls the movement of the lid; and third, in each of Jones, XPORT, and Uchiumi, the user or operator is at risk of getting a finger, limb, or other body part trapped under the closing lid. These three references are clearly analogous with each other and are in the same field of endeavor.

9. Applicant has asserted that XPORT and Uchiumi fail to disclose the limitations of claim 18, where the strut exerted force is said to be “substantially zero magnitude when said lid portion is in said closed configuration”. Examiner notes that the struts of XPORT and Uchiumi have been replaced with cam and spring based struts designed based on the teachings of Jones, where it is these replacement struts that are considered to have the features of claim 18 to the same degree Applicant has shown and disclosed. When interpreting the language of claim 18, Examiner looked to the originally filed disclosure and drawings and noticed that the spring was always pushing on the cam member, even when the cam was rotated so that point (c), the closed point, was in contact with the spring-loaded member (40). As such, Examiner did not interpret this language to

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mean that there was no spring force and took the language to mean that the strut, while still experiencing a spring force, was not acting so as to force the lid open. The rejections include replacement struts designed based on the teachings of Jones, where such struts would include a flat portion like that (22a) of Jones, where at such flat portion, the spring would still be pressing on the cam member, but the strut would not be forcing the lid upwards. This seems to be in line with Applicant's originally filed disclosure. If Applicant is intending that this language mean that no spring-force is present in the strut when in the closed position (c), then rejections under 35 U.S.C. 112 would likely be proper, however, this does not yet seem to be the case.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Larson whose telephone number is (571)272-

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8649. The examiner can normally be reached on Monday-Friday, 9a-5p (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Newhouse can be reached on (571) 272-4544. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin M Larson/
Examiner, Art Unit 3782
6/24/10